Outline

- History
- Problems
- Solutions
- Data Collection Tools
  - Online data collection (Wavemaker)
  - Mobile based applications (ODK)
  - Excel
- Security
- DRC Systems
  - NewComers
  - DRC~Targeting System
  - DRC~Alpha System
  - SharePoint
- Why Open source?
- Recommendation.
Data is the new OIL
- We need to find it, extract it, refine it, distribute it and monetize it.
History
History

• 2012: Data was collected on paper forms
• 2013: Data is entered in excel files
• 2014: Data is collected using tablets
• 2014-2015: Data is processed using offline/online data management systems.
• 2016: Web platforms, Mobile Applications, Cloud computing ..
Problems

• No data security when using paper assessments
• Searching could take ages.
• No change log when updating records in excel.
• No admin control when using ona or formhub or other third party systems. (Sensitive data !! Trust !!)
• Duplication of records
• No permissions and access control.
• High cost to purchase a system/server/development tool/Running-maintenance-support cost.
Solution

User → Offline/Online Data collection tool → Online Data collection tool → Offline Data collection tool

Server:
- DBMS
- Web Hosting Server

User → Web Platforms

User → Data Processing (CRUD)

User → Data Extraction

User → Data Visualisation

User → Reports
Tools

- Linux Server.
  - DBMS: PostgreSQL
  - ODK Aggregate Server
  - Tomcat
- Wavemaker.
- Tablets
  - ODK Collect
  - Android App
- QGIS & ArcGIS
- R & SPSS
- Tableau
Data Collection Tools

- Open Data Kit (ODK) is a **free and open-source** set of tools which help organizations author, field, and manage mobile data collection solutions. ODK provides an out-of-the-box solution for users to:

  - Build a data collection form (XLS Form is recommended for larger forms);
  - Collect the data on a mobile device and send it to a server; and
  - Aggregate the collected data on a server and extract it in useful formats.
• WaveMaker Enterprise is a licensed software that enables organizations to run their own end-to-end application platform-as-a-service (aPaaS) for rapidly building and efficiently running custom apps.

• It also allows developers and business users to work with standard enterprise-grade technologies to immediately create apps that can be easily extended or customized. Those apps can consume APIs, visualize data for insights and automatically support multi-device responsive interfaces.

• WaveMaker Enterprise enables organizations to deploy applications on public or private cloud infrastructure, and containers can be deployed on top of virtual machines or on bare metal.

• After 9 months of learning, searching, Trail & Error, DRC was able to launch first web application.
Security

• SSL Certificate.
• View/Layout Security.
• Database Security
  • Access to views only
  • Compartment and Group Permissions
  • Row Level Security
New Comers System

- **Inter-Agency Platform to:**
  - Profile Beneficiaries.
  - Cross-Check to avoid duplication.
  - Used by (Medair, Save The Children, Care, Handicap, Solidarities Liban & DRC)
  - 80,000+ Households.

- **Internal Use:**
  - Track Assistance.
  - Target Unregistered people.
  - Generate distribution lists.
  - Generate Reports
DRC~Targeting System

- **Vulnerability Profiling Assessment:**
  - Identify vulnerable people.
  - Easily Search/Browse Cases.
  - Auto score (Socio-Economic Score and Shelter Score)
  - Record/Track Assistance.
  - Profile Registered and Unregistered Cases.
  - Generate Reports
  - Used by (DRC, HI and NRC-soon-)
  - Add innovative features, including harmonising with Inter-Agency UCAP targeting mechanism (the only NGO with in-house capacity of this nature)

- **Protection Assessment Form:**
  - Emergency Assistance.
  - Internal Score.
  - Limited access to protection staff
  - Generate Reports
DRC~Alpha System

- An integrated online platform for DRC-Lebanon Sectors (CSMC, Shelter, cash, CEL and Protection)

SEE ONLINE

https://im.drclebanon.dk/alpha/login.html
Systems Features

- Online Access.
- Link to ODK.
- Link to QGIS.
- Dynamic Google Maps.
- Bulk Upload.
- Excel and CSV Upload.
- Send Automatic emails and notifications.
- Easy to customise.
- Grant different permissions and access.
- Live Data Visualisation
- Extract Data and Reports (Inter-Agency and Grants).
- File Storage.
- Fast and reliable.
SharePoint

- Office 365 feature to store, document and share files (all sizes) taking in consideration users permissions.
- Rolled out in all MENA Region.
- Free.
Why Open Source?

- DRC Systems are all free except $---  !!!
- First System took 9 months, but after hard work the second System took ? -- ? Months.
- Servers, Development studios, running cost & licenses cost a lot of money which should be allocated to people in need.
- Ability to build/customise based on programme needs.
Recommendation

- Choose the tools that provide cost efficiency (free), less time and good quality.
- Have a small committee to provide technical support at regional level. (begin first with one country).
- ……… Think in saving money when choosing tools to save x children or women at risk or elderly lives.
Thank you!